

The Amount and Source of Millionaires' Wealth (Moderately) Predict Their Happiness

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Abstract

Two samples of more than 4,000 millionaires reveal two primary findings: First, only at high levels of wealth—in excess of US\$8 million (Study 1) and US\$10 million (Study 2)—are wealthier millionaires happier than millionaires with lower levels of wealth, though these differences are modest in magnitude. Second, controlling for total wealth, millionaires who have earned their wealth are moderately happier than those who inherited it. Taken together, these results suggest that, among millionaires, wealth may be likely to pay off in greater happiness only at very high levels of wealth, and when that wealth was earned rather than inherited.

Keywords

happiness, income, money, wealth, well-being

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Many people aspire to great wealth, and becoming a millionaire is a commonly used reference for financial success (Kasser & Ryan, 1993); moreover, people tend to think that more money is related to more happiness (Aknin, Norton, & Dunn, 2009; Myers, 2000b). But does great wealth bring great happiness? If so, how much wealth is required? And, does the manner in which that wealth is accrued—whether you earned it yourself, or inherited it—predict the amount of happiness experienced? We use two large and unique samples of millionaires to shed novel light on these fundamental questions about the relationship between money and happiness.

A large body of cross-sectional survey research demonstrates that overall life satisfaction continues to rise with income, though typically with diminishing marginal return (e.g., Aknin et al., 2009; Kahneman & Deaton, 2010; Myers, 2000a; Stevenson & Wolfers, 2008). However, the vast majority of the data informing our understanding of this relationship is derived from samples that have relied heavily on average earners (e.g., Cummings, 2000) and the poor (Biswas-Diener & Diener, 2006). For instance, Cummings (2000) meta-analytically reviewed effect sizes from 31 studies that investigated the relation between subjective well-being and income. Only one of these samples included individuals who made more than US\$150,000 annually. In addition, many studies investigating the influence of wealth on happiness have utilized large panel data sets (e.g., Diener, Ng, Harter, & Arora, 2010; Kahneman & Deaton, 2010;

Ng & Diener, 2014). These data sets, while large, are also typically representative of the sample populations and only identify a small number of “wealthy” participants as making over US\$150,000 a year. Furthermore, many convenience samples (e.g., Aknin et al., 2009; Diener & Diener, 2009; Diener, Tay, & Oishi, 2013; Johnson & Krueger, 2006) are missing data from wealthy individuals—likely because they are less likely to respond to requests to complete surveys (see Page, Bartels, & Seawright, 2013).

Compounding this issue, comparisons of well-being at the individual level have relied primarily on personal or household annual income (e.g., Blanchflower & Oswald, 2004; Diener & Diener, 2009; Di Tella, Haisken-De New, & MacCulloch, 2010; Kahneman & Deaton, 2010), which typically has a more restricted range than people's net worth—which can be accumulated over time and includes all assets in addition to income (Headey & Wooden, 2004). A number of large panel data sets include a small proportion of participants who report a relatively high annual household income

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(data sets and proportion of sample with annual household income exceeding the top value listed in parentheses: the United States General Social Survey [12.6% over US\$110,000], the German Socio-Economic Panel [0.67% over US\$120,000], the National Longitudinal Survey [0.84% over US\$150,000], the United States National Survey of Midlife Development [6.07% over US\$150,000], and the Taiwan Social Change Survey [.01% over US\$160,000]). These top income levels are much lower than the wealth levels in our samples, and these surveys do not break down these high-income respondents into even smaller buckets of very high-income respondents, such that there are not sufficient numbers of high-net-worth individuals to compare with our samples. In sum, previous analyses of the relationship between money and happiness have typically been subject to a restricted range problem—at the higher end in particular.

One approach toward understanding the relationship between wealth and well-being among the wealthy has been to evaluate lottery winners. However, research on lottery wins has also failed to evaluate large samples of wealthy individuals, typically focusing on individuals who won small sums, with just a handful of “big winners.” For instance, Brickman, Coates, and Janoff-Bulman (1978) compared 22 lottery winners (with average winnings of ~US\$480,000) with nonwinners from the same geographical areas. Lottery winners were not found to be any happier than control participants but did report taking less pleasure in ordinary activities (e.g., socializing with friends, watching television). When Gardner and Oswald (2007) compared 137 lottery winners (average winnings ~US\$200,000) with both nonwinners and individuals who won smaller sums, the larger winners experienced greater mental stress that year, and a small improvement in psychological well-being after 2 years. Taken together, these studies suggest that medium-sized windfalls may have a small impact toward improving well-being.

Insight into the happiness of millionaires is limited to a single sample from the 1983 *Forbes* list of wealthiest Americans (Diener, Horwitz, & Emmons, 1985). In this study, 49 wealthy individuals (each with a net worth over US\$125M) were compared with average earners from the same geographical areas. The very rich were, on average, somewhat happier than the average earners and reported moderately more satisfaction with life. The authors concluded that wealthier people are found to be happier than relatively poor people, but the effects are small. However, this relative lack of data raises the question: Does even more money bring even more happiness?

In addition to the relationship between happiness and the sheer amount of wealth, we investigate whether the source of that wealth predicts the happiness associated with it. Certainly, the manner in which people *spend* their money has been shown to influence happiness, with spending on experiences (Gilovich & Kumar, 2015; Van Boven & Gilovich, 2003) and spending on others and giving to charity (Dunn,

Aknin, & Norton, 2008, 2014) typically associated with greater happiness than spending on material goods for the self. In addition, research has explored how the source of money affects subsequent spending of that money: Framing money as a windfall versus an anticipated gain (Arkes et al., 1994), describing tax refunds as rebates versus bonuses (Epley & Gneezy, 2007), and making the source of a monetary gift as a relative versus an ill relative (Levav & McGraw, 2009) have all been shown to influence future spending.

Building on this previous research, we explore whether the manner in which wealth is acquired—the source of wealth—is a predictor not of spending but of happiness. Andrew Carnegie opined that parents leaving their child “enormous wealth generally deadens the talents and energies of the child, leading to a less useful and less worthy life than they otherwise would” (Carnegie, 1962, pg. 56). Indeed, receiving a large inheritance significantly decreases people’s labor force participation, offering some supporting evidence for this “Carnegie Conjecture” that inherited wealth leads to a decreased desire to work (Elinder, Erixson, & Ohlsson, 2012; Holtz-Eakin, Joulfaian, & Rosen, 1993). We explore whether Carnegie’s words also apply to the well-being that people derive from their wealth—as a function of whether they earned or inherited it.

Overview of the Studies

We utilize data from two large samples of high-net-worth respondents. In Study 1, all respondents ($N = 2,129$, 70.4% male, *median age* = 45–54 years, sampled in 17 countries) reported a net worth of at least US\$1.5 million (*median* = US\$3 million–US\$7.9 million; Figure 1) and high incomes (*median annual income* = US\$100,000–US\$149,999; Figure 2). Respondents completed an item assessing their life satisfaction on a 7-point scale (Figure 3). In Study 2, all respondents ($N = 2,026$, 73.2% male, $M_{age} = 54.5$, $SD = 12.8$, sampled in 17 countries) reported a net worth of at least US\$1 million (*median* = US\$2 million–US\$4.9 million; Figure 4) and high incomes (*median annual income* = US\$100,000–US\$149,999; Figure 5). Respondents completed an item assessing their level of happiness with their lives in general on a 10-point scale (Figure 6). In both samples, net worth and income were converted to US\$, and respondents indicated the sources of their wealth, allowing us to calculate the percentage of earned wealth sources (e.g., from savings through earnings) and the percentage of unearned wealth sources (e.g., from an inheritance or marriage).

Method

Respondents and Design

Ledbury Research conducted both surveys on behalf of a large financial institution in January 2012 and 2013 for

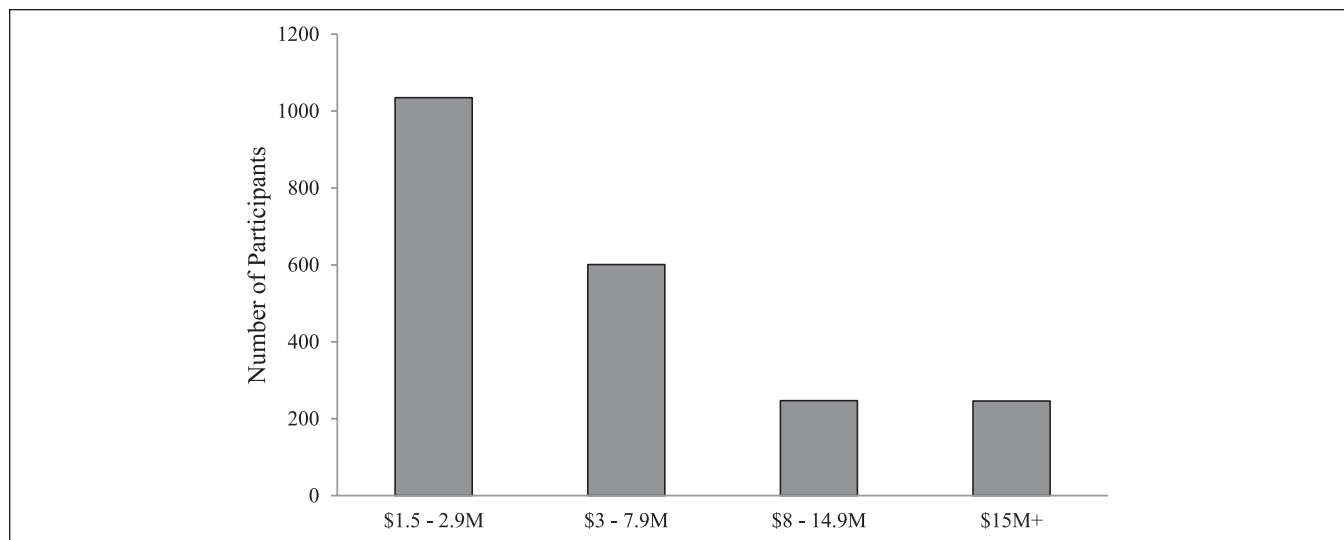


Figure 1. Net worth ($N = 2,129$; Study I).

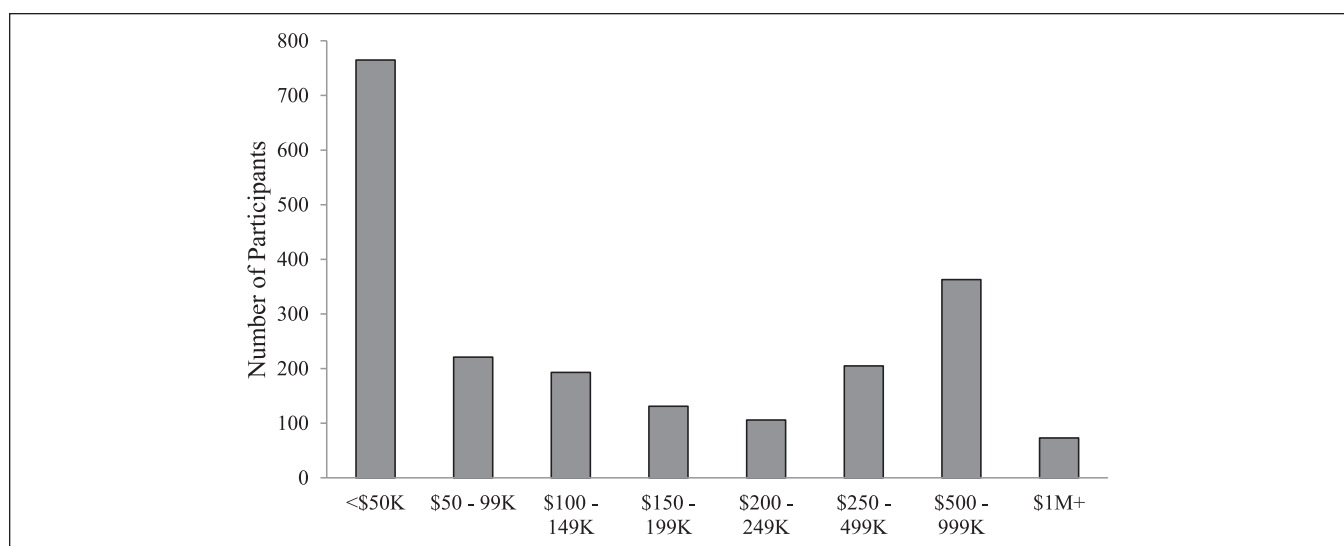


Figure 2. Individual income ($N = 2,057$; Study I).

commercial purposes; we use a subset of questions from the full survey instrument for our analyses. Per the stated guidance of the Harvard Business School Institutional Review Board for research using commercial data sets, we received approval for using data only after all respondent identifying information was removed.

Study I: Millionaires' Satisfaction With Life

Materials and Procedure

Respondents were high-net-worth individuals ($N = 2,129$) sampled in 17 countries in which the financial institution

operates: 24.1% in the United States, 24.4% in the United Kingdom, and 79.2% in developed countries. Respondents were primarily male (70.4%) and middle aged (*median age group* = 45-54 years). All respondents reported a net worth of at least US\$1.5 million (*median net worth* = US\$3 million-US\$7.9 million) and high incomes (*median annual income* = US\$100,000-US\$149,999).

Respondents first rated their current net worth, defined as the total value of their savings, investments and assets minus any borrowing/mortgages (percentage endorsing each option in parentheses): (a) under US\$375,000, (b) US\$375,000-US\$749,999, (c) US\$750,000-US\$999,999, (d) US\$1 million-US\$1.49 million, (e) US\$1.5 million-US\$2.9 million (48.6%), (f) US\$3 million-US\$7.9 million (28.2%), (g)

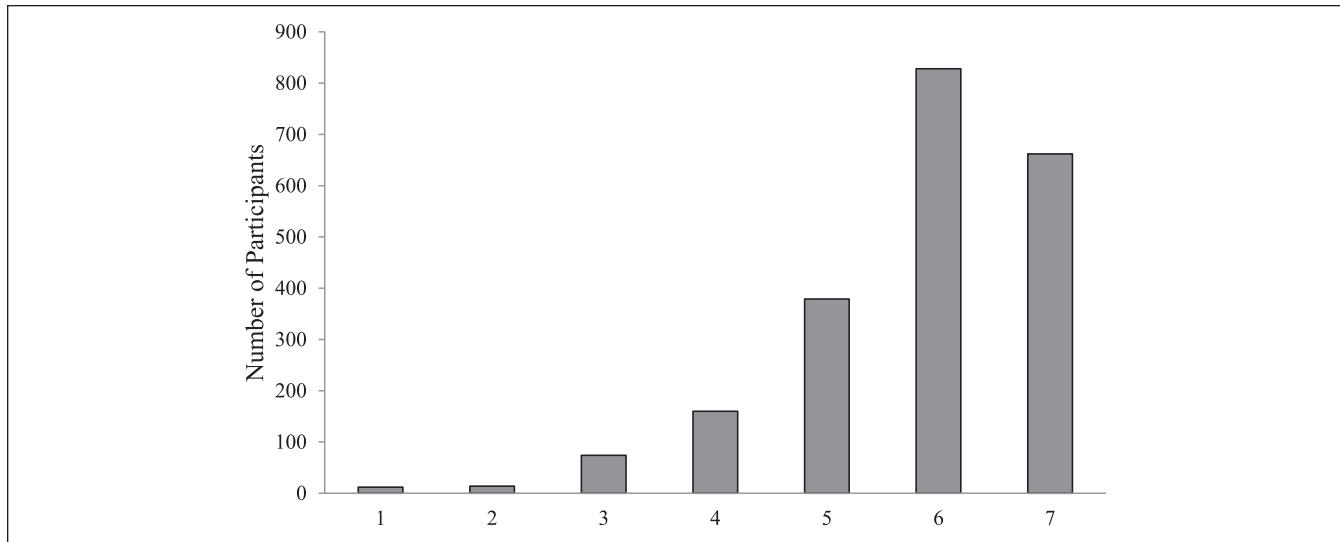


Figure 3. Satisfaction with life ($N = 2,129$; Study 1).

Note. Respondents were recorded on a 7-point scale (ranging from 1, *strongly disagree*, to 7, *strongly agree*).

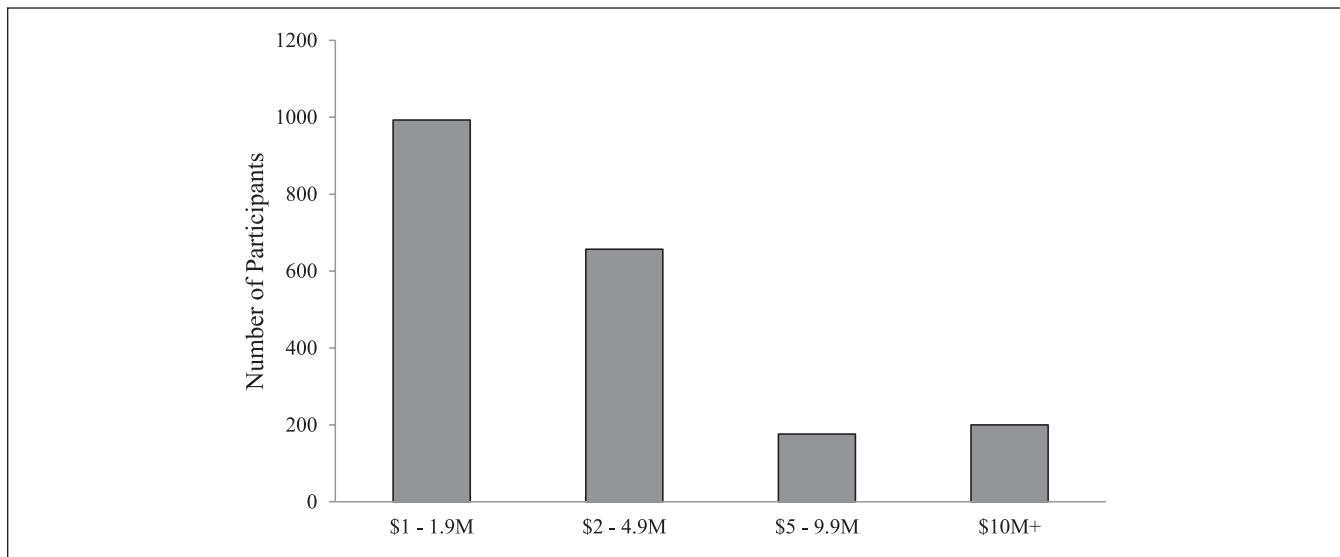


Figure 4. Net worth ($N = 2,026$; Study 2).

US\$8 million-US\$14.9 million (11.6%), (h) 15 million+ (11.6%), (i) would rather not say. Respondents who indicated a net worth of under US\$1.5 million or who responded (i) were screened out of the survey (a decision made by the survey organization prior to data collection).

Respondents then completed a series of questions included by the sponsoring organization. Finally, respondents rated their satisfaction with their life in general: “All things considered, I am satisfied with my life” on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale. Such single-item measures assessing life satisfaction are commonly used in both panel data (e.g., Blanchflower & Oswald, 2004; Lucas & Donnellan, 2012) and convenience samples (e.g., Diener

et al., 1985; Dunn et al., 2008), and have been found to be highly reliable (Abdel-Khalek, 2006).

Respondents reported their individual income on an annual basis, including any bonuses and/or investment income (percentage endorsing each option in parentheses): (a) no current income (1.2%), (b) under US\$50,000 (34.6%), (c) US\$50,000-US\$99,000 (10.4%), (d) US\$100,000-US\$149,999 (9.1%), (e) US\$150,000-US\$199,999 (6.2%), (f) US\$200,000-US\$249,999 (5.0%), (g) US\$250,000-US\$499,999 (9.6%), (h) US\$500,000-US\$999,999 (17.1%), (i) 1 million+ (3.4%), (j) prefer not to answer (3.4%). The few respondents ($n = 25$) who chose (a) were grouped with those who chose (b) in the “under US\$50,000” category;

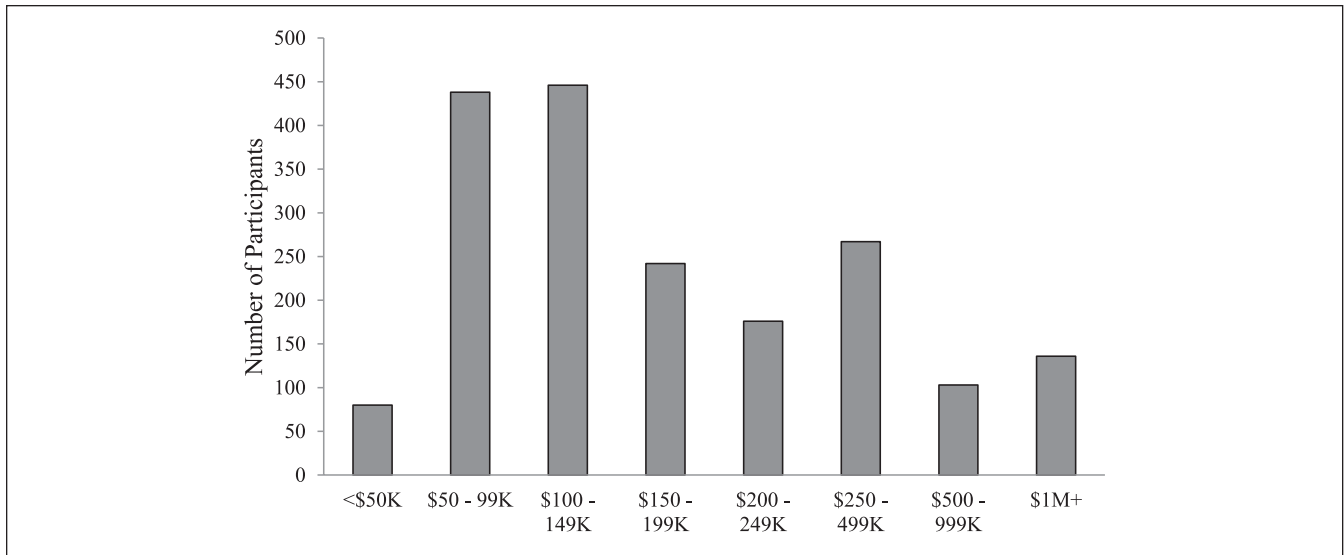


Figure 5. Household income ($N = 1,888$; Study 2).

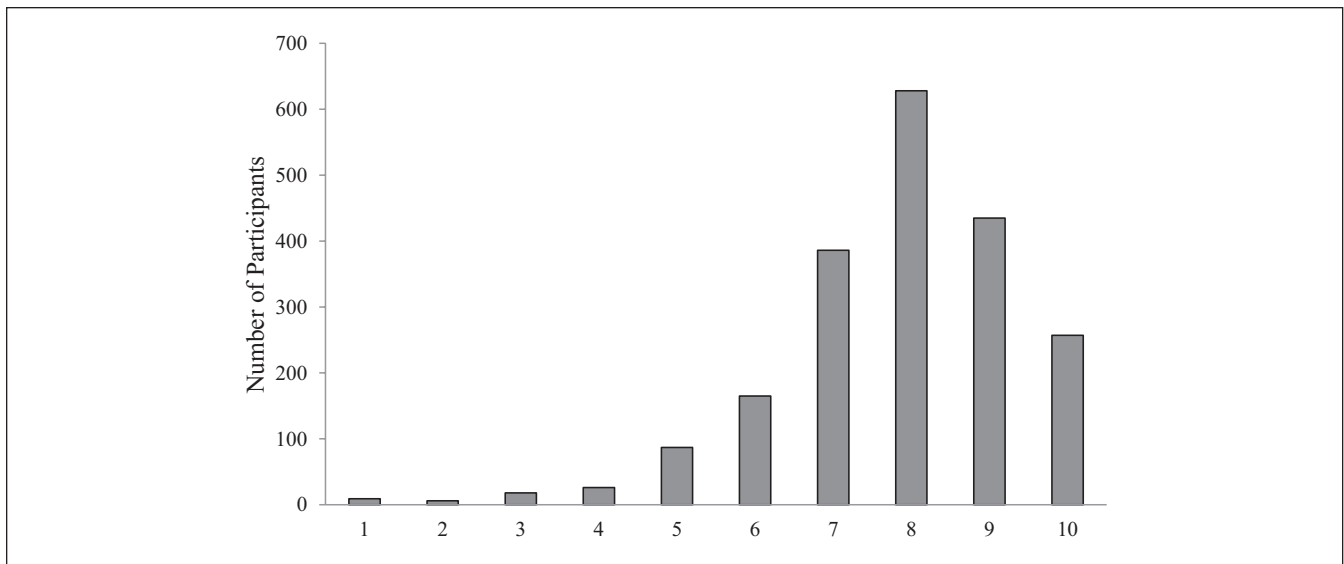


Figure 6. Happiness with life ($N = 2,017$; Study 2).

those who endorsed (j) were excluded from all analyses of income ($n = 72$).

All respondents were then asked, “Which of the following have contributed the most to your overall wealth?” with the following response options (percentage endorsing each option in parentheses): (a) inheritance (24.8%), (b) spouse/partner (12.5%), (c) savings through earnings/bonuses over time (49.1%), (d) profits/assets from business(es) (38.1%), (e) large bonus (28.9%), (f) personal investments (51.7%), (g) profit from property (36.8%), (h) other (6.2%). Respondents could report multiple sources of wealth. We summed the total number of sources for each respondent, and the number of instances listed that wealth

was inherited or the result of a spouse/marriage for each respondent; we divided these instances by the total number of sources to create a “percent of unearned wealth sources” variable.

To categorize these sources of wealth, we asked a sample of 100 participants from Amazon’s Mechanical Turk ($M_{age} = 38.87$, $SD = 12.46$; 50.0% female, 85.0% Caucasian) to rate all sources of wealth to the extent they considered each to be earned on a 7-point scale (ranging from 1, *definitely not earned*, to 7, *definitely earned*). Participants rated the inheritance and spouse/partner sources as unearned (as demonstrated by mean ratings significantly lower than the midpoint of the 7-point scale; all $ps < .05$), and all other sources as

being earned (with mean ratings significantly higher than the scale midpoint; all $ps < .001$).

Results

Net worth and personal income data were assessed in banded groups; we therefore created banded dummies for these variables in our analyses (see Table 1 for means, standard deviations, and correlations among all study variables).

In Step 1 of a four-step hierarchical regression (Table 2), we included only net worth dummy variables as predictors of life satisfaction using respondents who reported a net worth of US\$1.5M to US\$2.9M—the modal response—as the reference group (Field, 2009). In Step 2, we included demographic variables previously shown to predict life satisfaction (e.g., Di Tella & MacCulloch, 2008; Kahneman & Deaton, 2010; Vendrik, 2013): gender, age, a polynomial term for age, marital status, and being retired. In Step 3, we include respondents' country of residence variables, and coded dummy variables using United States as the reference group. In Step 4, we included the "percent of unearned wealth sources" measure of respondents' reports of the sources of their wealth.

Compared with respondents with a net worth of US\$1.5M to US\$2.9M, respondents with a net worth of US\$3M to US\$7.9M were not more satisfied with life ($\beta = -.01$; $p = .62$, $d = .02$); those with a net worth of US\$8M to US\$14.9M were significantly more satisfied ($\beta = .06$, $p = .004$, $d = .15$), and those with a net worth of US\$15M+ were marginally more satisfied ($\beta = .04$, $p = .09$, $d = .10$). However, as Table 3 shows, these differences were small in absolute magnitude, with scores on a 7-point scale ranging from 5.79 to 5.97. These effects are consistent with, but relatively smaller than, effects observed for nationally representative samples at lower levels of wealth and income—where beta ranges from .06 to .40 (e.g., Blanchflower & Oswald, 2004; Clark & Oswald, 2002; Deaton, 2008; Di Tella et al., 2010; Di Tella & MacCulloch, 2008; Di Tella, MacCulloch, & Oswald, 2003; Diener, Sandvik, Seidlitz, & Diener, 1993; Hagerty, 2000; Kahneman & Deaton, 2010; Stevenson & Wolfers, 2008; Vendrik, 2013)—perhaps demonstrating the marginal utility of wealth on well-being.

In addition, the percentage of wealth sources that was unearned was negatively related to life satisfaction ($\beta = -.05$, $p = .02$, $d = .10$), suggesting that earning rather than inheriting wealth is associated with greater happiness. However, as Table 4 shows, these differences were small in absolute magnitude, with scores on a 7-point scale ranging from 5.22 to 6.02. Life satisfaction was also predicted by gender (males were happier than females) and being married ($ps < .01$).

We next evaluated personal income as a predictor of happiness. We used the modal income group—respondents making <US\$50K—as the reference group (Table 5), conducting the same 4-step regression as above but including banded income dummies in addition to banded wealth dummies. The

pattern of results was unchanged for wealth when we included income. The only income group that differed from the <US\$50K reference group were respondents with US\$1M+, though these respondents reported lower levels of satisfaction ($\beta = -.05$; $p = .03$, $d = .18$).

Study 2: Millionaires' Happiness

To replicate our two primary findings from Study 1—that very high levels of wealth are associated with significantly—though moderately—greater happiness, and that earned wealth is associated with greater happiness than inherited wealth, our second sample also included high-net-worth individuals recruited by Ledbury Research, using a similar survey with some small changes. First, well-being was assessed by general ratings of happiness: Respondents rated their current level of happiness with their lives in general, a measure used in previous research, and correlates with measures of life satisfaction and demonstrates similar predictive ability (Di Tella et al., 2010; Di Tella & MacCulloch, 2008; Howell & Howell, 2008; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Second, the survey organization included all participants with a net worth of over US\$1M (as opposed to US\$1.5M in Study 1), and assessed wealth in four slightly narrower banded groups. Third, household income was assessed rather than individual income; household income is a reliable predictor of well-being (Howell & Howell, 2008). Finally, following previous research assessing the accuracy of people's predictions about the relationship between assets and happiness (Aknin et al., 2009; Cone & Gilovich, 2010; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006), we assess millionaires' beliefs about the impact of more wealth on their happiness.

Materials and Procedure

Respondents were high-net-worth individuals ($N = 2,026$) sampled in 17 countries in which the financial institution operates: 25.5% in the United States, 24.7% in the United Kingdom, and 67.7% in developed countries. Respondents were primarily males (73.2%) and middle aged ($M_{age} = 54.5$, $SD = 12.8$). All respondents reported a net worth of at least US\$1 million (*median net worth* = US\$2 million-US\$4.9 million) and high incomes (*median annual income* = US\$100,000-US\$149,999). Ledbury Research recruits high-net-worth individuals from a large global panel, making it unlikely that the same respondents completed both surveys; because data are deidentified, we cannot link the two data sets to crosscheck.

Respondents first rated their current net worth, defined as the total value of their savings, investments, and assets minus any borrowing/mortgages (percentage endorsing each option in parentheses): (a) under US\$250,000, (b) US\$250,000-US\$499,999, (c) US\$500,000-US\$749,999, (d) US\$750,000-US\$999,999, (e) US\$1 million-US\$1.9 million (49.0%),

Table I. Correlation Matrix (Study I).

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5.82	1.15																
2	5.86	1.02	.03															
3	3.50	2.50	.08***	-.05*														
4	0.70	0.46	-.02	.07***	-.12***													
5	3.25	1.16	.20***	.03	.36***	.13***												
6	11.89	7.33	.19***	.04†	.39***	.08***	.98***											
7	0.79	0.40	.14***	-.03	.06**	.23***	.46***	.19***										
8	0.17	0.38	.14***	.01	.62***	.04*	.50***	.08***	-.09***									
9	0.17	0.27	-.09***	.00	.02	-.17***	-.11***	-.03	-.11***	-.03								
10	0.25	0.43	-.01	-.05**	-.03	-.07**	-.12***	-.06**	-.06**	-.01	.51***							
11	0.12	0.33	-.13***	.04†	.01	-.13***	-.07***	-.08***	-.06**	-.06**	.62***	-.13***						
12	0.49	0.50	.08***	-.07***	.09***	.05*	.10***	.10***	.03	.05*	-.32***	-.09***	-.20***					
13	0.38	0.49	.00	-.09***	-.01	.09***	.00	.01	.02	.08***	-.18***	.03	-.14***	-.14***				
14	0.29	0.45	-.08***	-.07***	-.06**	.06**	-.10***	-.11***	.03	-.10***	-.22***	-.06**	-.12***	.07**	-.14***			
15	0.52	0.50	.04†	.01	-.02	.00	-.05*	-.05**	.05*	-.02	-.25***	.07***	-.19***	.03	.01	.06**		
16	0.37	0.48	.05*	.06**	-.19***	.03	-.15***	-.16***	.06**	-.17***	-.17***	.14***	-.15***	.05*	.09***	.03	.24***	
17	0.06	0.24	.01	.19***	-.08***	.03	-.04*	-.05*	.03	-.07**	-.11***	-.05**	-.08***	-.03	-.11***	-.08***	.00	-.03

Note. 1 = satisfaction with life; 2 = net worth; 3 = income; 4 = gender (1 = male); 5 = age; 6 = age²; 7 = married (1 = yes); 8 = retired (1 = yes); 9 = % of unearned wealth sources; 10 = wealth source: Inheritance (1 = yes); 11 = wealth source: Spouse/partner (1 = yes); 12 = wealth source: Saved wages (1 = yes); 13 = wealth source: Business profits/assets (1 = yes); 14 = wealth source: Large bonus (1 = yes); 15 = wealth source: Personal investments (1 = yes); 16 = wealth source: Profit from property (1 = yes); 17 = wealth source: Other (1 = yes).

†*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

Table 2. Stepwise Regression Predicting Life Satisfaction From Net Worth Groups (Study 1).

Predictor variable	Step 1	Step 2	Step 3	Step 4
US\$3M-US\$7.9M	.01	.01	-.01	-.01
US\$8M-US\$14.9M	.05*	.04 [†]	.06**	.06**
US\$15M+	.02	.03	.03	.04 [†]
Gender (1 = male)		-.05*	-.05*	-.06**
Age		.08	.06	.06
Age ²		.06	.04	.05
Married (1 = yes)		.11***	.10***	.10***
Retired (1 = yes)		.07**	.05 [†]	.04 [†]
Brazil (1 = yes)			.06**	.06**
China (1 = yes)			-.21***	-.20***
Hong Kong (1 = yes)			-.05*	-.05*
India (1 = yes)			.02	.02
Ireland (1 = yes)			-.06**	-.06**
Japan (1 = yes)			-.21***	-.21***
Mexico (1 = yes)			.06**	.06**
Monaco (1 = yes)			.05*	.05*
Qatar (1 = yes)			.02	.02
Saudi Arabia (1 = yes)			.10***	.10***
Singapore (1 = yes)			-.06**	-.06**
South Africa (1 = yes)			.01	.01
Spain (1 = yes)			.05*	.05*
Switzerland (1 = yes)			.03	.04 [†]
United Arab Emirates (1 = yes)			.01	.01
The United Kingdom (1 = yes)			.00	.00
% of unearned wealth sources				-.05*
ΔR^2	.00	.05	.12	.00
ΔF	1.98	23.38	18.12	5.48
Total R^2	.00	.06	.17	.17
F	1.98	15.39***	17.88***	17.43***
df	3, 2084	8, 2079	24, 2063	25, 2062

Note. Respondents with a net worth of US\$1.5M to US\$2.9M, and from the United States, serve as the reference group for wealth comparisons and country comparisons, respectively.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3. Satisfaction With Life Scores (1-7 Scale) by Wealth Level (Study 1).

n	Wealth level (US\$)	Satisfaction with life
1,035	1.5M-2.9M	5.79 (1.12)
601	3M-7.9M	5.81 (1.21)
247	8M-14.9M	5.97 (1.04)
246	15M+	5.84 (1.20)

Note. Standard deviations are listed in parentheses.

(f) US\$2 million-US\$4.9 million (32.4%), (g) US\$5 million-US\$9.9 million (8.7%), (h) US\$10 million+ (9.9%), (i) would rather not say. Respondents who indicated a net worth of under US\$1 million or who responded (i) were screened out of the survey (a decision made by the survey organization prior to data collection).

Respondents then completed a series of questions included by the sponsoring organization. Finally, respondents rated their

general happiness: "How would you rate your current level of happiness with your life in general on a 1 to 10 scale, where 1 equals *extremely unhappy* and 10 equals *extremely happy*?"

Respondents who did not answer "10" to the happiness question were then asked, "What increase in your wealth do you think would move you one point higher on the scale?" and given six options: (a) no increase would change my happiness, (b) a 10% increase in your current wealth, (c) a 50% increase in your current wealth, (d) double your current wealth, (e) 5 times your current wealth, and (f) 10 times your current wealth. Only respondents who had not answered "No increase would change my happiness" to the 1-point increase question and had not reported a "9" or "10" to the happiness question answered, "What increase in your wealth do you think would move you to a 10 on the scale (extremely happy)?" using the same six response options.

Respondents reported their household income on an annual basis, including any bonuses and/or investment income (percentage endorsing each option in parentheses):

Table 4. Satisfaction With Life Scores (1-7 Scale) by Percentage of Unearned Wealth Sources (Study 1).

<i>n</i>	% unearned wealth sources	Happiness
1,337	0	5.88 (0.03)
10	14	5.56 (0.35)
26	17	5.22 (0.21)
85	20	5.86 (0.12)
98	25	5.49 (0.11)
5	29	5.88 (0.47)
100	33	5.88 (0.11)
27	40	5.90 (0.22)
279	50	5.75 (0.07)
13	67	6.02 (0.29)
108	10	5.66 (0.10)

Note. Standard errors are listed in parentheses. This model includes covariates included in Table 2.

(a) no current income (0.2%), (b) under US\$50,000 (3.8%), (c) US\$50,000-US\$99,999 (21.6%), (d) US\$100,000-US\$149,999 (22.0%), (e) US\$150,000-US\$199,999 (11.9%), (f) US\$200,000-US\$249,999 (8.7%), (g) US\$250,000-US\$499,999 (13.2%), (h) US\$500,000-US\$999,999 (5.1%), (i) 1 million+ (6.7%), (j) prefer not to answer (6.8%). The few respondents ($n = 4$) who chose (a) were grouped with those who chose (b) in the “under US\$50,000” category; those who endorsed (j) were excluded from all analyses of income ($n = 138$).

All respondents were then asked, “Which of the following have contributed the most to your overall wealth?” with the following response options (percentage endorsing each option in parentheses): (a) inheritance (25.4%), (b) spouse/partner (18.4%), (c) savings through earnings/bonuses over time (55.5%), (d) profits/assets from business(es) (32.9%), (e) profits/assets from business(es) (15.5%), (f) large bonus (12.9%), (g) personal investments (55.2%), (h) profit from property (33.6%), (i) other (1.1%). Respondents could report multiple sources of wealth. We summed the total number of sources for each respondent, and the number of instances listed that wealth was inherited or the result of a spouse/marriage for each respondent; we divided these instances by the total number of sources to create a “percent of unearned wealth sources” variable.

Results

Net worth and household income data were assessed in banded groups, albeit in different bands than the previous sample; we again created banded dummies for these variables in our analyses (see Table 6 for means, standard deviations, and correlations among all study variables). We used the same four-step hierarchical regression as Study 1 (Table 7), including the same variables as before in each step.

Compared with respondents with a net worth of US\$1M to US\$1.9M, respondents with a net worth of either US\$2M to US\$4.9M or US\$5M to US\$9.9M were not happier ($\beta_s = .01$ and $-.02$, $ps = .57$ and $.40$, $ds = .02$ and $.06$); those with a net worth of US\$10M+, however, were significantly happier ($\beta = .06$, $p = .02$, $d = .16$). However, as Table 8 shows, these differences were again small in absolute magnitude, with scores on a 10-point scale ranging from 7.72 to 8.03. As in Sample 1, these effects were also consistent with, but relatively smaller than, effects observed in nationally representative samples at lower levels of wealth and income.

Also as in Sample 1, the percentage of wealth that was unearned was negatively related to happiness ($\beta = -.05$, $p = .04$, $d = .09$). However, as Table 9 shows, these differences were again small in absolute magnitude, with scores on a 10-point scale ranging from 7.38 to 8.05. Happiness was also significantly predicted by being married and being retired ($ps < .007$).

Predictions of the amount of wealth needed to increase happiness were similar across wealth levels. The most common response for a 1-point increase in happiness was “no increase” (36.8%), followed by “100% more” (22.3%) and “50% more” (18.4%); this pattern did not differ by wealth, $\chi^2(15) = 7.43$, $p = .95$, $d = .01$ (see Table 10). The percentage increase needed was larger for an increase in happiness to a “perfect 10,” with “1,000% more” the most frequent (26.8%), followed by “500% more” (24.5%) and “100% more” (23.2%); this pattern again did not differ by wealth, $\chi^2(15) = 16.62$, $p = .34$, $d = .04$ (see Table 11). We note that “no increase would change my happiness” item is ambiguous, such that endorsing this item could either indicate that respondents were happy with the wealth they had (such that no change would affect their happiness), or that the level of wealth needed to change their happiness was unrealistically large (such that no increase exists that would affect their happiness). Despite this ambiguity, we note that for both questions, the majority of respondents reported a specific numerical change in wealth that they believed would change their happiness.

We evaluated household income as a predictor of happiness, including all banded net worth and banded income variables in the same regression (Table 12), which did not change the pattern of results for net worth: Again, only respondents worth US\$10M+ were significantly happier than those worth US\$1M to US\$1.9M ($\beta = .05$, $p = .04$, $d = .13$). No income groups differed from the <US\$50K reference group. Thus, while both samples show converging evidence that high levels of wealth are associated with greater happiness, results for income are more mixed, with higher incomes in Study 1 negatively associated with life satisfaction but in Study 2 not associated with happiness. While we can only speculate, Study 1 assessed personal income and Study 2 household income, and these two metrics may relate to different aspects of well-being.

Table 5. Stepwise Regression Predicting Life Satisfaction From Net Worth and Income Groups (Study 1).

Predictor variable	Step 1	Step 2	Step 3	Step 4
Net worth (US\$)				
3M-7.9M	.00	.00	-.01	-.01
8M-14.9M	.05*	.04 [†]	.06**	.06**
15M+	.01	.03	.03	.04 [†]
Income (US\$)				
50K-99K	-.01	-.01	.01	.01
100K-149K	-.02	-.02	.01	.01
150K-199K	-.05*	-.04 [†]	-.01	-.01
200K-249K	-.04 [†]	-.03	-.02	-.02
250K-499K	.01	-.01	-.02	-.02
500K-999K	.12***	-.03	-.04	-.04
1+M	-.02	-.03	-.05*	-.05*
Gender (1 = male)		-.06*	-.06**	-.07**
Age		.09	.07	.06
Age ²		.06	.04	.05
Married (1 = yes)		.11***	.11***	.10***
Retired (1 = yes)		.08	.07	.07
Brazil (1 = yes)			.06**	.06**
China (1 = yes)			-.21***	-.20***
Hong Kong (1 = yes)			-.05*	-.05*
India (1 = yes)			.01	.02
Ireland (1 = yes)			-.06**	-.06**
Japan (1 = yes)			-.21***	-.21***
Mexico (1 = yes)			.06**	.06**
Monaco (1 = yes)			.05*	.05*
Qatar (1 = yes)			.02	.02
Saudi Arabia (1 = yes)			.10***	.10***
Singapore (1 = yes)			-.07**	-.07**
South Africa (1 = yes)			.01	.01
Spain (1 = yes)			.05*	.05*
Switzerland (1 = yes)			.04 [†]	.04 [†]
United Arab Emirates (1 = yes)			.01	.01
The United Kingdom (1 = yes)			.00	.00
% of unearned wealth sources				-.05*
ΔR^2	.03	.03	.12	.00
ΔF	5.42	14.73	18.18	5.10
Total R^2	.03	.06	.18	.18
F	5.42***	8.64***	14.12***	13.87***
df	10, 2077	15, 2072	31, 2056	32, 2055

Note. Respondents with net worth of US\$1.5M to US\$2.9M, income of <US\$50K, and from the United States, serve as the reference group for wealth comparisons, income comparisons, and country comparisons, respectively.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

Is greater wealth associated with greater well-being? Overall, using two large samples of millionaires with two measures of well-being (happiness in general and life satisfaction), we find consistent evidence that somewhat higher levels of wealth are not associated with higher well-being, but substantially higher levels (greater than US\$8M in Sample 1, greater than US\$10M in Sample 2) are linked to modestly greater well-being.

Augmenting some models of the money–happiness link that suggest a “flattening out” of the curve once an income threshold has been reached—for example, US\$75,000 (Kahneman & Deaton, 2010)—our results suggest that the curve does not fully flatten out: Great wealth does predict greater happiness. Research suggests that wealth can have mixed effects on happiness: While the wealthy are more likely to engage in some behaviors associated with increased well-being—such as volunteering at nonprofit organizations (Dury et al., 2015; Tang et al., 2008), giving money to those

Table 6. Correlation Matrix (Study 2).

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	7.84	1.54																			
2	5.79	0.96																			
3	4.00	1.96	-.03																		
4	0.73	0.44	.03	.50***																	
5	54.48	12.76	.22***	.08***	-.01																
6			.16***	-.30***	.16***																
7	0.82	0.38	.16***	-.06*	.23***	.21***															
8	1.71	1.23	.18***	.04†	.29***	.28***	.38***														
9	0.30	0.46	.18***	-.09***	.58***	.59***	.13***	.09***													
10	0.19	0.29	-.01	-.23***	-.13***	-.11***	-.04†	.01	-.08***												
11	0.25	0.43	-.05*	-.11***	-.13***	-.11***	-.08***	.02	-.06**	.70***											
12	0.18	0.39	.00	-.02	-.26***	-.06***	.07**	-.03	.01	.54***	.20***										
13	0.55	0.50	-.04†	-.12***	.03	.09***	.09***	.04†	-.06**	.14***	-.02	.06**									
14	0.16	0.36	.00	.15***	.08***	.08***	.04†	.03	-.05*	-.15***	-.03	-.07**	-.15***								
15	0.13	0.33	-.09***	.07***	.14***	.05*	-.13***	-.12***	-.02	-.09***	-.08***	.05*	.16***	.08***							
16	0.55	0.50	.00	-.04†	-.02	.01	.01	.04	-.04†	.02	-.26***	.04*	.17***	-.02	.15***						
17	0.34	0.47	-.07**	.01	.10***	-.04†	-.14***	-.14***	-.01	-.14***	.01	.03	.06**	.07***	.19***	.28***					
18	0.01	0.10	.03	.02	.00	.02	.04*	.05*	-.03	.03	.06*	-.02	-.01	-.05*	-.03	-.02	-.01				
19	1.77	1.61	-.13***	-.02	.08**	.07***	-.28***	-.27***	-.10***	-.10***	-.20***	-.02	-.01	.04	.05*	-.02	.04†	-.05*			
20	3.24	1.62	-.12***	-.05	.10**	-.02	-.16***	-.16***	-.01	-.11***	-.15***	-.04	-.02	.03	.05	.01	.08*	.04	.07*	.02	.33***

Note. 1 = current happiness; 2 = net worth; 3 = income; 4 = gender (1 = male); 5 = age; 6 = age²; 7 = married (1 = yes); 8 = children; 9 = retired (1 = yes); 10 = % of unearned wealth sources; 11 = wealth source: Inheritance (1 = yes); 12 = wealth source: Spouse/partner (1 = yes); 13 = wealth source: Saved wages (1 = yes); 14 = wealth source: Business profits/assets (1 = yes); 15 = wealth source: Large bonus (1 = yes); 16 = wealth source: Personal investments (1 = yes); 17 = wealth source: Profit from property (1 = yes); 18 = wealth source: Other (1 = yes); 19 = increase for "1 point"; 20 = increase for "perfect 10."

* $p < .10$. ** $p < .05$. *** $p < .001$.

Table 7. Stepwise Regression Predicting Happiness From Net Worth Groups (Study 2).

Predictor variable	Step 1	Step 2	Step 3	Step 4
US\$2M-US\$4.9M	.02	.01	.01	.01
US\$5M-US\$9.9M	-.04	-.03	-.01	-.02
US\$10M+	.04 [†]	.05*	.05*	.06*
Gender (1 = male)		-.02	-.02	-.03
Age		.09	.06	.02
Age ²		.04	.04	.08
Married (1 = yes)		.08**	.09***	.09***
Children (1 = yes)		.12***	.03	.04
Retired (1 = yes)		.10***	.08**	.08**
Brazil (1 = yes)			.06**	.06**
China (1 = yes)			-.23***	-.24***
Hong Kong (1 = yes)			-.07**	-.07**
India (1 = yes)			.00	.01
Ireland (1 = yes)			-.04	-.03
Japan (1 = yes)			-.13***	-.13***
Mexico (1 = yes)			.02	.02
Monaco (1 = yes)			.11***	.11***
Qatar (1 = yes)			.12***	.13***
Saudi Arabia (1 = yes)			.11***	.11***
Singapore (1 = yes)			-.06*	-.06*
South Africa (1 = yes)			-.04	-.04
Spain (1 = yes)			-.04 [†]	-.04
Switzerland (1 = yes)			-.01	.00
United Arab Emirates (1 = yes)			.01	.01
The United Kingdom (1 = yes)			-.01	-.01
% of unearned wealth sources				-.05*
ΔR^2	.00	.08	.12	.00
ΔF	2.16	25.99	15.73	4.10
Total R^2	.00	.09	.20	.21
F	2.16 [†]	18.10***	17.48***	16.99***
df	3, 1730	9, 1724	25, 1708	26, 1707

Note. Respondents with a net worth of US\$1M to US\$1.9M, and from the United States, serve as the reference group for wealth comparisons and country comparisons, respectively.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 8. Happiness With Life in General Scores (1-10 Scale) by Wealth Level (Study 2).

n	Wealth level (US\$)	Happiness
993	1M-1.9M	7.81 (1.54)
654	2M-4.9M	7.87 (1.53)
176	5M-9.9M	7.72 (1.62)
194	10M+	8.03 (1.47)

Note. Standard deviations are listed in parentheses.

in need (Smeets, Bauer, & Gneezy, 2015), and donating their used items for reuse (Granzin & Olsen, 1991)—they are less likely to engage in other behaviors linked to well-being—such as behaving charitably toward others (Piff, Kraus, Côté, Cheng, & Keltner, 2010). Our results suggest that despite these conflicting effects of wealth on the pursuit of happiness—

Table 9. Happiness With Life in General Scores (1-10 Scale) by Percentage of Unearned Wealth Sources (Study 2).

n	% unearned wealth sources	Happiness
1,195	0	7.89 (0.04)
8	14	8.04 (0.52)
24	17	8.05 (0.30)
44	20	7.83 (0.21)
111	25	7.73 (0.14)
7	29	7.38 (0.54)
181	33	7.81 (0.11)
17	40	7.76 (0.34)
127	50	7.84 (0.13)
52	67	7.56 (0.22)
88	100	7.66 (0.16)

Note. Standard errors are listed in parentheses. This model includes covariates included in Table 6.

Table 10. Predictions of Wealth Increase Needed to Gain 1 Point in Happiness on a 10-Point Scale (Study 2; *N* = 1,760).

	No increase	10% increase	50% increase	100% increase	500% increase	1,000% increase	Total
US\$1M-US\$1.9M	316 (35.8%)	64 (7.3%)	170 (19.3%)	195 (22.1%)	94 (10.7%)	43 (4.9%)	882 (100.0%)
US\$2M-US\$4.9M	207 (36.9%)	46 (8.2%)	102 (18.2%)	126 (22.5%)	52 (9.3%)	28 (5.0%)	561 (100.0%)
US\$5M-US\$9.9M	57 (37.7%)	9 (6.0%)	24 (15.9%)	33 (21.9%)	16 (10.6%)	12 (7.9%)	151 (100.0%)
US\$10M+	67 (40.4%)	13 (7.8%)	28 (16.9%)	38 (22.9%)	12 (7.2%)	8 (4.8%)	166 (100.0%)
Total	647 (36.8%)	132 (7.5%)	324 (18.4%)	392 (22.3%)	174 (9.9%)	91 (5.2%)	1,760 (100.0%)

Table 11. Predictions of Wealth Increase Needed for a Perfect “10” in Happiness on a 10-Point Scale (Study 2; *N* = 887).

	No increase	10% Increase	50% Increase	100% Increase	500% Increase	1,000% Increase	Total
US\$1M-US\$1.9M	57 (12.6%)	8 (1.8%)	37 (8.2%)	110 (24.4%)	116 (25.7%)	123 (27.3%)	451 (100.0%)
US\$2M-US\$4.9M	37 (13.3%)	12 (4.3%)	29 (10.4%)	58 (20.9%)	66 (23.7%)	76 (27.3%)	278 (100.0%)
US\$5M-US\$9.9M	11 (13.4%)	4 (4.9%)	10 (12.2%)	14 (17.1%)	17 (20.7%)	26 (31.7%)	82 (100.0%)
US\$10M+	9 (11.8%)	2 (2.6%)	10 (13.2%)	24 (31.6%)	18 (23.7%)	13 (17.1%)	76 (100.0%)
Total	114 (12.9%)	26 (2.9%)	86 (9.7%)	206 (23.2%)	217 (24.5%)	238 (26.8%)	887 (100.0%)

inducing activities, sufficiently high wealth does indeed predict modestly greater happiness.

Why might greater wealth lead to greater happiness among millionaires? Diener et al.'s (1985) study of millionaires shows that the wealthy believe that money increases their happiness when used to help others and the world, and that money provides increased freedom to choose leisure activities and friends. Indeed, wealth enables people to take greater control of their lives by giving the wealthy greater autonomy over how they choose to spend their time (Gallo & Matthews, 2003; Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012), and such feelings have been associated with higher life satisfaction (Howell & Howell, 2008). While a number of researchers have cited need theory to explain the diminishing marginal effect of wealth and well-being (e.g., Howell & Howell, 2008), perhaps at the higher end, wealth increases millionaires' sense of efficacy in carrying out goals (Lachman & Weaver, 1998). In addition, it is possible that wealth helps millionaires to achieve the fundamental human goal of high status (Anderson, Hildreth, & Howland, 2015). While our data sets do not allow us to examine these potential mediating processes, we hope that future research explores these issues in more depth.

In addition, both samples document a novel factor determining the wealth-happiness link: Whether millionaires earned or inherited their wealth. While previous

research has focused on the effect of spending money in different ways (Dunn et al., 2014; Gilovich & Kumar, 2015), we focus instead on the effects on well-being of the manner in which money was acquired. Whereas previous research demonstrates that inheriting wealth can decrease desire for employment, we show that inheriting wealth has a psychological effect as well: The percentage of wealth that people earned serves as a positive predictor of general happiness. While we found the percentage of unearned wealth sources to negatively predict happiness, our data do not allow us to calculate the actual proportion of wealth that was earned or unearned. While a convenience sample evaluated receiving an inheritance and acquiring money through marriage as an unearned source of wealth, we cannot be certain that recipients of inheritances and wealth through marriage would evaluate these sources of wealth as being unearned. Future research should evaluate how perceptions of earning wealth impact well-being; one possibility is that the effort of earning leads people to value their wealth more, in the same way that effort leads people to more highly value social groups, consumer products, and even psychotherapy (Aronson & Mills, 1959; Axsom & Cooper, 1965; Norton, Mochon, & Ariely, 2012). In sum, we show that, in addition to microeconomic factors that determine the relationship between money and happiness—such as economic inequality (Oishi, Kesebir, &

Table 12. Stepwise Regression Predicting Current Happiness From Net Worth and Income Groups (Study 2).

Predictor variable	Step 1	Step 2	Step 3	Step 4
Net worth (US\$)				
2M-4.9M	.03	.01	.01	.01
5M-9.9M	-.02	-.03	-.02	-.02
10M+	.07*	.05*	.05*	.05*
Income (US\$)				
50K-99K	.14***	.07*	.02	.02
100K-149K	.13***	.09**	.05	.05
150K-199K	.05	.05	.01	.01
200K-249K	.03	.03	.00	.00
250K-499K	.08*	.08*	.05	.05
500K-999K	.03	.03	.00	.00
1+M	.01	.04	.02	.02
Gender (1 = male)		-.02	-.02	-.04
Age		.08	.06	.01
Age ²		.04	.04	.08
Married (1 = yes)		.08**	.09***	.09***
Children (1 = yes)		.11***	.03	.03
Retired (1 = yes)		.10***	.08**	.08**
Brazil (1 = yes)			.06**	.06**
China (1 = yes)			-.23***	-.23***
Hong Kong (1 = yes)			-.07**	-.07**
India (1 = yes)			.00	.01
Ireland (1 = yes)			-.04†	-.04†
Japan (1 = yes)			-.13***	-.13***
Mexico (1 = yes)			.02	.02
Monaco (1 = yes)			.11***	.12***
Qatar (1 = yes)			.12***	.13***
Saudi Arabia (1 = yes)			.11***	.12***
Singapore (1 = yes)			-.06*	-.06*
South Africa (1 = yes)			-.04	-.04
Spain (1 = yes)			-.04†	-.04
Switzerland (1 = yes)			-.01	.00
United Arab Emirates (1 = yes)			.01	.01
The United Kingdom (1 = yes)			-.01	-.01
% of unearned wealth sources				-.05*
ΔR^2	.02	.07	.12	.00
ΔF	2.96	23.25	15.51	4.31
Total R^2	.02	.09	.21	.21
F	2.96***	10.72***	13.84***	13.58***
df	10, 1723	16, 1717	32, 1701	33, 1700

Note. Respondents with net worth of US\$1M to US\$1.9M, income of <US\$50K, and from the United States, serve as the reference group for wealth comparisons, income comparisons, and country comparisons, respectively.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Diener, 2011)—a novel microeconomic factor shapes happiness: Whether wealth was inherited or earned.

We note that, as in all cross-sectional data assessing the money–happiness link, our results are correlational: We can say neither that very high levels of wealth cause greater happiness, nor that earning wealth causes greater happiness than inheriting it. For example, causation may run in the opposite direction, with higher well-being leading to higher wealth (Lyubomirsky, King, & Diener, 2005); indeed, happier people

are more likely to obtain a college degree, to get promoted in their jobs, and to earn greater wealth (De Neve & Oswald, 2012). We are also unable to assess whether inheritors and earners differ on other variables such as intelligence or conscientiousness, which may account for the differences in happiness we observe; for instance, our effects may vary as a function of the extent to which millionaires measure their self-worth on their financial success (Park, Ward, & Naragon-Gainey, 2017). In addition, because the two samples assessed

wealth using different banded groups, we are unable to identify a common “tipping point” in which happiness should be greatest, though the two samples do suggest that this tipping point occurs only at high levels of wealth compared with lower levels of wealth. And finally, while the sample sizes of our study are relatively large for this population—millionaires—we cannot be certain that they are representative of millionaires in general (though of course, millionaires are by definition an unrepresentative group).

Still, taken together, these results suggest that millionaires’ belief that increased wealth is associated with increased happiness is more likely to be realized at high levels of wealth, and when they have earned it.

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Supplemental Material

Supplementary material is available online with this article.

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